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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,618	08/13/2001	Jean-Francois Latour	P5477 US	7991
35690	7590	09/30/2005	EXAMINER	
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C. P.O. BOX 398 AUSTIN, TX 78767-0398			TRUONG, CAMQUY	
			ART UNIT	PAPER NUMBER
			2195	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/928,618

Applicant(s)

LATOUR, JEAN-FRANCOIS

Examiner

Camquy Truong

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/19/05</u>   | 6) <input type="checkbox"/> Other: ____                                     |

### DETAILED ACTION

1. Claims 1-40 are presented for examination.
2. It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the examiner and Applicant all future correspondence should include the recommended line numbering.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-13, 15-25, 27-35, 37-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derrick et al (U.S. Patent 5,872,980) in view of Perotto et al. (U.S. Patent 5,630,130).
4. Perotto was cited in the last office action.

5. As to claims 1, 10, 19 and 32, Derrick teaches the invention substantially as claimed including: the mechanism being operable:

one or more mutexes, wherein the sequence of mutexes is associated with a resource (col. 7, lines 1-2);

when a requesting thread attempts an access to the resource, to lock a mutex, wherein the locked mutex is allocated to the requesting thread (col. 3, lines 51-53 and lines 62-67; col. 8, lines 23-24), and

to make a determination whether the sequence includes a previous mutex (col. 7, lines 36-40)

if a result of the determination is positive, to attempt to lock a previous mutex in sequence if present, whereby the requesting thread is suspended if the previous mutex is already locked until the previous thread finishing access to the resource (col. 8, lines 24-29).

6. Derrick does not explicitly teach that a resource access control mechanism for a multi-thread computing environment. However, Perotto teaches a resource access control mechanism for a multi-thread computing environment (col. 1, lines 6-15; col. 5, lines 3-6).

7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Derrick and Perotto because Perotto's resource access control mechanism for a multi-thread computing environment would

increase the flexibility of Derrick's system by providing a resource access control mechanism for a multi-thread computing environment to increase the effective size of the task performed by the microprocessor and improving the response time of the controller.

8. As to claim 22, it is reject for the same reason as claim 1 above. In addition, Perotto teaches:

A Processor (microprocessor, col. 1, line 2);

A memory storing a method for controlling access to a resource for a multi-thread computing environment wherein upon execution of said method on said processor (col. 1, lines 2-15).

9. As to claims 2, 11, 23, 33, Derrick teaches the mechanism being operable, on attempting to lock a previous mutex in the sequence when the previous mutex is unlocked, to lock the previous mutex on behalf of the requesting thread and then to unlock the previous mutex on behalf of the requesting thread (col. 3, line 62- col. 4, line 9; col. 8, lines 24-30).

10. As to claims 3, 12, 24, and 34, Perotto teaches the resource access control mechanism unlocks the mutex allocated to the requesting thread in response to the requesting thread completing access to the resource (col. 5, lines 8-9).

11. As to claims 4, 13, 25 and 35, Perotto teaches the mechanism includes an internal mutex operable to protect the locking of the mutex allocated to the requesting thread (col. 5, lines 9-12).

12. As to claims 6-9, 15-18, 27-30 and 37-40, Perotto does not explicitly teach the sequence of mutexes is held in an array, a ring buffer, a linked list and a circular linked list. However, it is well known to those skilled in the art, that array, a ring buffer, a linked list and a circular linked list are used to hold a list of nodes or elements of a data structure connected by pointers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included an array, a ring buffer, a linked list and a circular linked list because they would be desirable to perform the customization the most efficient manner possible.

13. As to claims 20-21, Perotto teaches the carrier medium comprise a storage medium (col. 1, lines 9-12).

14. As to claim 31, Perotto teaches the method stored in the memory comprise a computer program (col. 1, lines 23-30).

15. Claims 5, 14, 26 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perotto et al (U.S. Patent 5,630,130), as applied to claims 1, 10, 19, and 32 above, in view of Applicant Admitted Prior Art (AAPA).

16. As to claims 5, 14, 26 and 36, Perotto does not explicitly teach the resource comprise a print function. However, AAPA teaches the resource comprise a print function (page 2, lines 15-16).

17. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings Perotto and AAPA because AAPA's print function, as resource would provide a more efficient solution to the provision of serializing thread access to printer resources.

***Response to the argument***

19. Applicant's arguments filed 7/14/05 for claims 1-40 have been considered but are moot in view of the new ground(s) rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory

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action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8AM – 5PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

September 15, 2005

  
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TECHNICAL CENTER 1